Amendments to the Specification:

Please replace paragraph [0073] with the following amended paragraph:

[0073] As may be seen with reference to **FIG. 7**, the determination of the full engagement of plug **212** and socket **216** (whereby electronic circuitry which requires isolation occurs on the plug side) is achieved as follows. Current from supply line **236** flows through resistor **R1 (298)**, through forward-biased diode **300** and is blocked from the plug sensor circuit output by diode **302**. A current pathway is available across the plug/socket junctions **290** and **286**, through diode **276** that now acts as a sensor activation element by passing current back through plug/socket junctions **284** and **288**, and finally through resistor **R2 (304)** to Ground <u>249</u> ~~250~~. The potential across resistor **R2 (304)** with respect to Ground <u>249</u> ~~250~~ is sensed by the socket Sensor Circuit **257** to be approximately 2/3 times 15V (set by the potential divider **R1/R2** i.e. ~10V). The threshold voltage necessary to activate the socket Sensor Circuit **(257)** could be set at 6 or 7 volts, greater than typical logic levels of 5V. Thus the activation voltage of ~10V is comfortably greater than the threshold, and false activations are minimized. Diode **276** is forward biased because of the crossed Sensor Lines **292** and **294** on the socket side. Were this not the case the required voltage potential at the socket Sensor Circuit **257** would not be available because no current could flow through resistor **R2 (304)**, causing the appropriate activating voltage to be absent. Thus only when plug **212** and socket **216** are fully engaged is the socket Sensor Circuit **257** activated, and the switched lines forming part of the I/O bus **214** are then electrically connected to the I/O bus **222**. Hence the switched (and also the unswitched) lines are correctly available at the socket via the fully engaged plug.

Please delete paragraph [0074].

Please replace paragraph [0082] with the following amended paragraph:

[0082] c) current from line **236** via resistor **R1 (298)** and diode **300** passes along Sensor Line **1 (292)** to contacts **290** and **286**, then via Sensor Line **2 (282)** through diode **276**, Sensor Line **1 (280)**, contacts **284** and **288**, Sensor Line **2 (294)** and through

resistor **R2** (**304**) to Ground **249** ~~**250**~~. The potential at the junction of **R2** (**304**) and Sensor Line **2** (**294**) with respect to Ground **249** ~~**250**~~ is now available to activate the plug Sensor Circuit **257**; or

Please replace paragraph [0083] with the following amended paragraph:

[0083] d) current from line **235** through resistor **R1** (**272**) and diode **274** passes along Sensor Line **1** (**280**), through contacts **284** and **288**, then via Sensor Line **2** (**294**) through resistor **R2** (**304**) to Ground **249** ~~**250**~~. The potential at the junction of **R2** (**304**) and Sensor Line **2** (**294**) with respect to Ground **249** ~~**250**~~ is now available to activate the plug Sensor Circuit **257**.